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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

opplication of: Sakata et al.

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Application No.: 10/071,390

Group Art Unit: 1755

Filed: February 7, 2002

Examiner: To Be Assigned

For:

ISOTHIAZOLOANTHRONES,

Attorney Docket No.: 10624-053-999

ISOXAZOLOANTHRONES, ISOINDOLANTHRONES AND DERIVATIVES THEREOF AS JNK

INHIBITORS AND

COMPOSITIONS AND METHODS

RELATED THERETO

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

In accordance with Applicants' duty of disclosure imposed by 37 C.F.R. §§ 1.56 and 1.97, Attorneys for Applicants hereby invite the Examiner's attention to References AA-CHiscited in a revised PTO Form-1449 filed herewith. A copy of References AA-CH is also submitted herewith.

Identification of the cited references is not to be construed as an admission of Applicants or Attorneys for Applicants that such references are available as "prior art" against the subject application. Consequently, Applicants respectfully decline to use form PTO-1449, since this form identifies all of the references therein as "Prior Art." As an alternative, Applicants submit herewith the "revised PTO Form-1449," described above, entitled "List of References Cited" instead of "List of Prior Art Cited." Applicants respectfully request that References AA-CH be considered by the Examiner and made of record in the aboveidentified application file.

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Pursuant to 37 C.F.R. §1.97(b), this Information Disclosure Statement is being filed prior to the mailing date of a first Office Action on the merits, therefore, it is believed that no fee is required.

In the event that the Patent Office believes that a fee is due, please charge the required fee to Pennie & Edmonds LLP Deposit Account No. 16-1150. A copy of this sheet is enclosed.

Date

July 2, 2002

Respectfully submitted,

authory a. Aurogan

M, 36,343

Anthony M. Insogna

(Reg. No.)

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LIST OF REFERENCES CITED BY AND REPORT

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10624-053-999

APPLICANT

Sakata and Raymon

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	AB	FR 2 336 708 A	07/22/77	France France France France France	%			
	AC	FR 2 167 626 A	08/24/73	France V		<u> </u>		
	AD	FR 2 024 807 A	09/04/70	France Cy	1	71 2 4		
	AE	FR 2 401 915 A	03/30/79	France	, '7g, ()	RH	
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				<u> </u>		<u>B</u>		
		OTHER	REFERENCES (Including Author, Title, Date, Pertinent Page	es, Etc.)			
	LA	Ames et al., 1987, Free radicals" (CHEMABS O		ed., 3(2):85-96, "An integrated concept of am	nebicidal action: ele	ectron trans	fer and	оху
	AK	Aspenstrom et al., 1996, "Two GTPases, Cdc42 and Rac, bind directly to a protein implicated in the immunodeficiency disord Wiskott-Aldrich syndrome", Curr. Biol. 6:70-77 Chen et al., 1996, "Activation and inhibition of the AP-1 complex in human breast cancer cells", Mol. Carcinogenesis 15:215 226 Deacon et al., 1999, "MEK kinase 3 directly activates MKK6 and MKK7, specific activators of the p38 and c-Jun NH2-termin kinases", J. Biol. Chem. 274:16604-16610						sorde
	AL							215-
	АМ							mina
	AN			rentiation in the absence of Jnk1", Science	282:2092-2095			
	АО	Faris et al., 1996, "Regulation of interleukin-2 transcription by inducible stabile expression of dominant negative and dominant active mitogen-activated protein kinase kinase kinase in Jurkat T cells", J. Biol. Chem. 271:27366-27373						
	AP	Galushko et al., 1977, k		. Soedin., 7:956-61, "Derivatives of pyrazolo ILINE)	anthrone. I. Reacti	vity of 2-	•	
	AQ			type IV collagenase expression by the jun a	aminoterminal kina	se- and the	extrace	eltula
	AR	1	Akad. Nauk, 33	4(4):465-8, "Amino-amino tautomerism and i	intramolecular cycl	ization of 4,	9-diami	ino-1
	AS	<u> </u>	· · · · · · · · · · · · · · · · · · ·	n rheumatoid arthritis", J. Pharm. Exp. Therap	o. 291:1-7	*		
	AT	Hartley et al., 1988, Mo	I. Pharmacol., 33	(3):265-71, "Characteristics of the interactionements for DNA binding, intercalation, and p	n of anthrapyrazole			
		deuxymbolidoleic acids.	actuctural require	aments for bitth billiang, intercalation, and p	III O O O O O O O O O O O O O O O O O O	/ OI ILIVEADO	CHEIN	·-/

,		•	Hibi et al., 1993, "Identification of an oncoprotein- and UV-responsive protein figure that binds and potentiates the c-Jun activation domain", M. Genes Dev. 7:2135-2148
		۸V	Hibi et al., 1993, "Identification of an oncoprotein- and UV-responsive protein fiber that binds and potentiates the c-Jun activation domain", M. Genes Dev. 7:2135-2148
		AW	Ishizuka et al., 1997, "Mast cell tumor necrosis factor alpha production is regulated by MEK kinases", <i>Proc. Nat. Acad. Sci.</i> USA 94:6358-6363
		AX	Ivanova et al., 1997, Poverkhnost, 4-5:193-201, "IPS investigation of electronic structure of pyrazolanthrone and its derivatives" (CHEMABS ONLINE)
		AY	Judson, 1992, Semin. Oncol. 19(6):687-94, "The anthrapyrazoles: a new class of compounds with clinical activity in breast cancer" (CHEMABS ONLINE)
		ΑZ	Kiyooka et al., 1990, "Photochemical Intramolecular Cyclization Reactions of Acylgermanes", Jr. J. Org. Chem. 55, 5562-4
F	1010	ВА	Karin et al., 1997, "AP-1 function and regulation", Curr Opin Cell Biol 9:240-246.
	A LANGE AND A STATE OF THE ASSESSMENT OF THE ASS	ВВ	Lange-Carter et al., 1993, "A divergence in the MAP kinase regulatory network defined by MEK kinase and Raf.", <i>Science</i> 260:315-319
PATEN	NT & TRADE	вс	Li et al., 1996, "Blocked signal transduction to the ERK and JNK protein kinases in anergic CD4* T cells", Science 271: 1272-1276
٦		BD	Li et al., 1996, "The Ras-JNK pathway is involved in shear-induced gene expression", Mol. Cell. Biol. 16:5947-5954
		BE	Lin et al., 1995, "Identification of a dual specificity kinase that activates the Jun kinases and p38-Mpk2", Science 268:286-289
		BF	Maj et al, 1992, "PNU 151774E protects against kainate-induced status epilepticus and hippocampal lesions in the rat", Eur. J. Pharm. 359:27-32, 1992.
		BG	Manning et al., "Transcription inhibitors in inflammation", Exp. Opin. Invest. Drugs 6: 555-567
		вн	Maroney et al., 1998, "Motoneuron apoptosis is blocked by CEP-1347 (KT 7515), a novel inhibitor of the JNK signaling pathway", J. Neurosci. 18:104-111
		BI	Mielke et al., 2000, "JNK and p38 stresskinasesdegenerative effectors of signal-transduction-cascades in thenervous system", <i>Prog. Neurobiol.</i> 61:45-60
		ВĴ	Milne et al., 1995, "p53 is phosphorylated <i>in vitro</i> and <i>in vivo</i> by an ultraviolet radiation-induced protein kinase characteristic of the c Jun kinase, JNK1", <i>J. Biol. Chem.</i> 270:5511-5518
	R	ВK	Mohit et al., 1995, "p493F12 kinase: a novel MAP kinase expressed in a subset of neurons in the human nervous system", C.A. Neuron 14:67-75
טטר	EC	BL	Nishina et al., 1997, "Impaired CD28-mediated interleukin 2 production and proliferation in stress kinase SAPK/ERK1 kinase (SEK1)/mitogen-activated protein kinase kinase 4 (MKK4)-deficient T lymphocytes", J. Exp. Med. 186:941-953
1	ı A	ВМ	Okamoto et al., 1997, "Selective activation of the JNK/AP-1 pathway in Fas-mediated apoptosis of rheumatoid arthritis synoviocytes", Arth & Rheum 40: 919-926
	ED	BN	Pombo et al., 1994, "The stress-activated protein kinases are major c-Jun amino-terminal kinases activated by ischemia and reperfusion", J. Biol. Chem. 26:26546-26551
		ВО	Raitano et al., 1995, "The Bcr-Abl leukemia oncogene activates Jun kinase and requires Jun for transformation", Proc. Nat. Acad. Sc. USA 92:11746-11750
		BP	Richards et al, <i>Am. J. Physiol</i> , 271:2, Pt 1, L267-76, 1996.
		BQ	Sabapathy et al., 1999, "JNK2 is required for efficient T-cell activation and apoptosis but not for normal lymphocyte development", Curr Biol 9:116-125
		BR	Saporito et al., 1998, "Preservation of cholinergic activity and prevention of neuron death by CEP-1347/KT-7515 following excitotoxic injury of the nucleus basalis magnocellularis:, <i>Neuroscience</i> 86:461-472
		BS	Saporito et al., 1999, "CEP-1347/KT-7515, an inhibitor of c-jun N-terminal kinase activation, attenuates the 1-methyl-4-phenyl tetrahydropyridine-mediated loss of nigrostriatal dopaminergic neurons In vivo", J Pharmacol Exp Ther. 288(2):421-7
		вт	Showalter et al., 1984, J. Med. Chem., 27(3):253-5, "5-'(Aminoalkyl)amino!-substituted anthra'1,9-cd!pyrazol-6(2H)-ones as novel anticancer agents. Synthesis and biological evaluation"
	,	BU	Showalter et al., 1987, J. Med. Chem., 30(1):121-31, "Anthrapyrazole anticancer agents. Synthesis and structure-activity relationships against murine leukemias" (CHEMABS ONLINE)

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		<u> </u>			
	BV	Singh, et al., 1978, Indian J. Chem. Sect. B, 16B(2):100-2, "Headlors of 2,2'-ethylenebis(anthrapyrazolone)" (CHEMABS ONLINE)			
	BW	Sokolyuk et al., 1992, 28(10):2193-200, "Synthesis and photochemical properties of peri-phenoxy derivatives of 6H-anthrocd!-6-pyrazolone (pyrazole anthrone)" (CHEMABS ONLINE)			
	вх	Su et al., 1994, "JNK is involved in signal integration during costimulation of T lymphocytes", Cell 77:727-736			
	вч	Swantek et al., 1997, "Jun N-terminal kinase/stress-activated protein kinase (JNK/SAPK) is required for lipopolysaccharide stimulation of tumor necrosis factor alpha (TNF-alpha) translation: glucocorticoids inhibit TNF-alpha translation by blocking JNK/SAPK", Mol. Cell. Biol. 17:6274-6282			
E 10	BZ	Szabo et al., "Altered cJUN expression: an early event in human lung carcinogenesis" Cancer Res. 56:305-315, 1996			
0 2 7 7 7 7 7	Teramoto et al., 1996, "Signaling from the small GTP-binding proteins Rac1 and Cdc42 to the c-Jun N-terminal kinase/stress-act protein kinase pathway. A role for mixed lineage kinase 3/protein-tyrosine kinase 1, a novel member of the mixed lineage kinase Biol. Chem. 271:27225-27228				
ENT & TRADE	СВ	Tournier et al., 1997, "Mitogen-activated protein kinase kinase 7 is an activator of the c-Jun NH2-terminal kinase", <i>Proc. Nat. Acad. Sci. USA</i> 94:7337-7342			
	СС	Whitmarsh et al., 1996, "Transcription factor AP-1 regulation by mitogen-activated protein kinase signal transduction pathways", J. Mol. Med. 74:589-607			
	CD	Winter et al, Arthritis and Rheumatism 9(3):394-404, 1966; Weichman et al, Pharmacological Methods in the Control of Inflammation, Chang and Lewis Eds., Alan R. Liss, Inc., Publ., New York, 1989.			
	CE	Yan et al., 1994, "Activation of stress-activated protein kinase by MEKK1 phosphorylation of its activator SEK1", Nature 372:798-800			
	CF	Yang et al., 1998, "Differentiation of CD4* T cells to Th1 cells requires MAP kinase JNK2", Immunity, 9:575-585			
	CG	Yang et al., 1997, "Absence of excitotoxicity-induced apoptosis in the hippocampus of mice lacking the Jnk3 gene", <i>Nature</i> 389:865-870			
	СН	Yin et al., "Tissue-specific pattern of stress kinase activation in ischemic/reperfused heart and kidney", <i>J. Biol. Chem.</i> 272:1994: 19950			

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